

CLAIMS

What is claimed is:

1. A method of operating a base station comprising:

Receiving a request for a channel of a plurality of channels on a first channel of the plurality of channels;

Determining whether a channel of the plurality of channels is available; and

Communicating to the requestor whether a channel of the plurality of channels is available.

2. The method of claim 1 wherein:

Communicating includes denying the request for a channel.

3. The method of claim 1 wherein:

Communicating includes granting the request for a channel by assigning the first channel.

4. The method of claim 1 wherein:

Communicating includes granting the request for a channel by assigning a second channel and the first channel.

1 5. The method of claim 1 wherein:

2 Communicating includes granting the request for a channel by assigning a  
3 second channel instead of the first channel.

1 6. The method of claim 1 wherein:

2 Determining includes evaluating a load of the system.

1 7. The method of claim 1 wherein:

2 Determining includes evaluating an emergency status of the request.

1 8. The method of claim 1 wherein:

2 Determining includes evaluating a status of a subscriber from whom the request  
3 originates.

1 9. The method of claim 8 wherein:

2 Evaluating the status includes evaluating the subscription terms of the  
3 subscriber.

1 10. The method of claim 8 wherein:

2 Evaluating the status includes evaluating the payment history of the subscriber.

1 11. The method of claim 1 wherein:

2 Determining includes evaluating a nature of the request.

1 12. The method of claim 11 wherein:

2 The nature of the request includes a high bandwidth requirement.

1 13. The method of claim 11 wherein:

2 The nature of the request includes a low bandwidth requirement.

1 14. The method of claim 11 wherein:

2 The nature of the request includes a set of capabilities of equipment used to  
3 make the request.

1 15. The method of claim 3 further comprising:

2 Receiving a request for a third channel of the plurality of channels upon  
3 assigning of the first channel;

4 Determining whether a third or fourth channel of the plurality of channels is  
5 available; and

6 Communicating to the requestor the third channel availability or fourth channel  
7 availability.

1 16. A method of operating a user terminal comprising:  
2 Sending a request for a first channel of a plurality of channels on the first  
3 channel; and  
4 Receiving an indication of availability of a channel of the plurality of channels.

1 17. The method of claim 16 wherein:  
2 The request including a subscriber identification.

1 18. The method of claim 16 wherein:  
2 The request including an emergency code.

1 19. The method of claim 16 wherein:  
2 The request including an equipment identification.

1 20. The method of claim 16 wherein:  
2 The request including a training sequence.

1 21. The method of claim 16 wherein:  
2 The indication signaling no channel is available.

1 22. The method of claim 16 wherein:  
2 The indication signaling the first channel is available.

1 23. The method of claim 16 wherein:

2 The indication signaling a second channel of the plurality of channels is  
3 available.

1 24. The method of claim 23 wherein:

2 The indication signaling the first channel is also available.

1 25. The method of claim 22 further comprising:

2 Communicating using the first channel.

1 26. The method of claim 23 further comprising:

2 Communicating using the second channel.

1 27. The method of claim 24 further comprising:

2 Communicating using the first channel and the second channel.

1 28. The method of claim 25 further comprising:

2 Sending a request for a third channel of the plurality of channels; and

3 Receiving an indication of availability of a channel of the plurality of channels.

1 29. The method of claim 28 wherein:

2 The indication signaling the third channel is not available.

1 30. The method of claim 28 wherein:  
2 The indication signaling the third channel is available.

1 31. The method of claim 28 wherein:  
2 The indication signaling a fourth channel is available.

1 32. The method of claim 21 further comprising:  
2 Waiting an inter-channel delay;  
3 Sending a request for a third channel of the plurality of channels on the third  
4 channel;  
5 Receiving an indication of availability of a channel of the plurality of channels.

1 33. The method of claim 32 wherein:  
2 the indication signaling the third channel is not available;  
3 determining no other channels may be requested;  
4 waiting an inter-attempt delay; and  
5 sending a request for the first channel on the first channel.

1 34. A method of providing access to a network comprising:

2 receiving a request for access on a first channel of a plurality of channels at  
3 random from a network subscriber, each channel of the plurality of channels suitable for  
4 accessing the network; and

5 granting access to the network on a channel of the plurality of channels based  
6 on an evaluation of factors.

1 35. The method of claim 34 wherein:

2 The factors include subscriber status, subscriber equipment, network loading,  
3 type of service requested, geographic location of the request, geographic location of the  
4 responding equipment, connection quality, usage history of the subscriber, and  
5 emergency status of the request.

1 36. A method of accessing a network comprising:

2 requesting access to the network on a first channel of a plurality of channels,  
3 each channel of the plurality of channels suitable for accessing the network; and  
4 receiving access to the network on a channel of the plurality of channels based  
5 on an evaluation of factors.

1 37. The method of claim 36 wherein:

2 The factors include subscriber status, subscriber equipment, network loading,  
3 and emergency status of the request.

1 38. The method of claim 36 wherein:

2 The request includes information related to equipment used by a subscriber  
3 making the request.

1 39. The method of claim 8 wherein:

2 Evaluating the status includes evaluating the usage history of the subscriber.

1 40. The method of claim 1 wherein:

2 Determining includes evaluating the radio frequency characteristics of the  
3 request.

1 41. A method comprising:

2 Receiving a request for a channel of a plurality of channels on a first channel of  
3 the plurality of channels;

4 Determining whether a channel of the plurality of channels is available; and

5 Communicating to the requestor whether a channel of the plurality of channels is  
6 available.

1 42. The method of claim 41 wherein:

2 Communicating includes denying the request for a channel.



1 43. The method of claim 41 wherein:

2 Communicating includes granting the request for a channel by assigning the first  
3 channel.

1 44. The method of claim 41 wherein:

2 Communicating includes granting the request for a channel by assigning a  
3 second channel and the first channel.

1 45. The method of claim 41 wherein:

2 Communicating includes granting the request for a channel by assigning a  
3 second channel instead of the first channel.

1 46. The method of claim 41 wherein:

2 Determining includes evaluating a load of the system.

1 47. The method of claim 41 wherein:

2 Determining includes evaluating an emergency status of the request.

1 48. The method of claim 41 wherein:

2 Determining includes evaluating a status of a subscriber from whom the request  
3 originates.

1 49. The method of claim 48 wherein:

2 Evaluating the status includes evaluating the subscription terms of the  
3 subscriber.

1 50. The method of claim 48 wherein:

2 Evaluating the status includes evaluating the payment history of the subscriber.

1 51. The method of claim 41 wherein:

2 Determining includes evaluating a nature of the request.

1 52. The method of claim 51 wherein:

2 The nature of the request includes a high bandwidth requirement.

1 53. The method of claim 51 wherein:

2 The nature of the request includes a low bandwidth requirement.

1 54. The method of claim 51 wherein:

2 The nature of the request includes a set of capabilities of equipment used to  
3 make the request.

1 55. The method of claim 43 further comprising:

2 Receiving a request for a third channel of the plurality of channels upon  
3 assigning of the first channel;

4 Determining whether a third or fourth channel of the plurality of channels is  
5 available; and

6 Communicating to the requestor the third channel availability or fourth channel  
7 availability.

1 56. The method of claim 48 wherein:

2 Evaluating the status includes evaluating the usage history of the subscriber.

1 57. The method of claim 41 wherein:

2 Determining includes evaluating the radio frequency characteristics of the  
3 request.

1 58. The method of claim 41 wherein:

2 Communicating includes at least one of: denying the request for a channel,  
3 granting the request for a channel by assigning the first channel, granting the request  
4 for a channel by assigning a second channel and the first channel, or granting the  
5 request for a channel by assigning a second channel instead of the first channel.

59. The method of claim 41 wherein:

Determining includes at least one of: evaluating the radio frequency characteristics of the request, evaluating a load of the system, evaluating an emergency status of the request, evaluating a status of a subscriber from whom the request originates, or evaluating a nature of the request.

60. An apparatus comprising:

means for receiving a request for a channel of a plurality of channels on a first channel of the plurality of channels;  
means for determining whether a channel of the plurality of channels is available;  
and  
means for communicating to the requestor whether a channel of the plurality of channels is available.

61. The apparatus of claim 60 wherein:

the means for communicating includes a means for assigning a channel of the plurality of channels.

62. The apparatus of claim 60 wherein:

the means for determining includes a means for evaluating a status of a network,  
a means for evaluating a status of a request, a means for evaluating a status of a  
subscriber, a means for evaluating a usage history of a subscriber and a means for  
evaluating a radio frequency characteristic of a request.

63. A system comprising:

a processor; and  
a network interface coupled to the processor;  
wherein the processor and the network interface are collectively configured to:  
receive a request for a channel of a plurality of channels on a first channel of the  
plurality of channels;  
determine whether a channel of the plurality of channels is available; and  
communicate to the requestor whether a channel of the plurality of channels is  
available.

64. A machine-readable medium embodying instructions, the instructions, when  
executed by a processor, causing the processor to perform a method, the method  
comprising:

Receiving a request for a channel of a plurality of channels on a first channel of  
the plurality of channels;

Determining whether a channel of the plurality of channels is available; and

7           Communicating to the requestor whether a channel of the plurality of channels is  
8   available.

1           65. The machine-readable medium of claim 64 further embodying instructions,  
2   the instructions, when executed by a processor, causing the processor to perform a  
3   method, wherein:

4           Communicating includes denying the request for a channel.

1           66. The machine-readable medium of claim 64 further embodying instructions,  
2   the instructions, when executed by a processor, causing the processor to perform a  
3   method, wherein:

4           Communicating includes granting the request for a channel by assigning the first  
5   channel.

1           67. The machine-readable medium of claim 64 further embodying instructions,  
2   the instructions, when executed by a processor, causing the processor to perform a  
3   method, wherein:

4           Communicating includes granting the request for a channel by assigning a  
5   second channel and the first channel.

1 68. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4 Communicating includes granting the request for a channel by assigning a  
5 second channel instead of the first channel.

1 69. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4 Determining includes evaluating a load of the system.

1 70. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4 Determining includes evaluating an emergency status of the request.

1 71. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4 Determining includes evaluating a status of a subscriber from whom the request  
5 originates.

1           72. The machine-readable medium of claim 71 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Evaluating the status includes evaluating the subscription terms of the  
5 subscriber.

1           73. The machine-readable medium of claim 71 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Evaluating the status includes evaluating the payment history of the subscriber.

1           74. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Determining includes evaluating a nature of the request.

1           75. The machine-readable medium of claim 74 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           The nature of the request includes a high bandwidth requirement.



1           76. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           The nature of the request includes a low bandwidth requirement.

1           77. The machine-readable medium of claim 74 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           The nature of the request includes a set of capabilities of equipment used to  
5 make the request.

1           78. The machine-readable medium of claim 66 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Receiving a request for a third channel of the plurality of channels upon  
5 assigning of the first channel;

6           Determining whether a third or fourth channel of the plurality of channels is  
7 available; and

8           Communicating to the requestor the third channel availability or fourth channel  
9 availability.

1           79. The machine-readable medium of claim 71 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Evaluating the status includes evaluating the usage history of the subscriber.

1           80. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Determining includes evaluating the radio frequency characteristics of the  
5 request.

1           81. The machine-readable medium of claim 64 further embodying instructions,  
2 the instructions, when executed by a processor, causing the processor to perform a  
3 method, wherein:

4           Communicating includes at least one of: denying the request for a channel,  
5 granting the request for a channel by assigning the first channel, granting the request  
6 for a channel by assigning a second channel and the first channel, or granting the  
7 request for a channel by assigning a second channel instead of the first channel.

82. The machine-readable medium of claim 64 further embodying instructions, the instructions, when executed by a processor, causing the processor to perform a method, wherein:

Determining includes at least one of: evaluating the radio frequency characteristics of the request, evaluating a load of the system, evaluating an emergency status of the request, evaluating a status of a subscriber from whom the request originates, or evaluating a nature of the request.

83. The method of claim 41 wherein:

the request implies a request for any channel of the plurality of channels.

84. The method of claim 41 wherein:

the request implies a request for the first channel of the plurality of channels.

85. The method of claim 41 wherein:

the request encodes a desired channel of the plurality of channels.